Docket No. 3875-4138US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): David McKinnon and Jane Dixon

Group Art Unit:

TBA

Serial No.:

09/786,108

Examiner:

TBA

Filed:

2/27/01

For:

Mammalian ELK Potassium Channel Genes

EXPRESS MAIL CERTIFICATE

Express Mail Label No.:

EL 762 624 518US

Date of Deposit:

June 18, 2001

I hereby certify that the following attached paper(s) and/or fee

- 1. Response;
- 2. Copy of Notice to Missing Parts;
- 3. Executed Combined Declaration and Power of Attorney
- 4. Recordation Cover Sheet:
- 5. Executed Assignment;
- 6. Statement Under 37 CFR 1.821(f);
- 7. Paper copy of Sequence Listing;
- 8. Disc copy of Sequence Listing;
- 9. Return Postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

F. Garcia

(Typed or printed name of person mailing papers(s) and/or fee)

(Signature of person mailing paper(s) and/or fee)

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.

345 Park Avenue

New York, NY 10154-0053

(212) 758-4800 Telephone

(212) 751-6849 Facsimile

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

David McKinnon and Jane Dixon

Group Art Unit:

TBA

Serial No.:

09/786,108

Examiner:

TBA

Filed:

February 27, 2001

For:

Mammalian ELK Potassium Channel Genes

Commissioner for Patents Washington, D.C. 20231

RESPONSE

Sir:

This is in response to the Notification of Missing Parts Requirement under 35 U.S.C. 371.

Enclosed herewith is a signed Combined Declaration and Power of Attorney. The signed Combined Declaration and Power of Attorney now correctly identifies PCT Application No. PCT/US99/19902 filed August 31, 1999.

Also enclosed is a paper and disc copy of the corrected Sequence Listing. SEO ID NOs. 5 and 6 are now amended and correctly identified as PRT sequences. Please replace the originally filed Sequence Listing. The STIC Examiner pointed out that SEQ ID NOs. 5 and 6 are in error. The sequences are now correctly identified.

Support for the amendment is to be found in the specification at page 43, lines 10 and 11. Attached is a copy of the Notice as required.

REMARKS

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3875-4138US1.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: June 18, 2001

By:

Maria C.H. Lin

Registration No. 29, 323

Correspondence Address:

MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, NY 10154-0053 (212) 758-4800 Telephone

(212) 751-6849 Facsimile

COMBINED DECLARATION AND POWER OF ATTORNEY FOR ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MAMMALIAN ELK POTASSIUM CHANNEL GENES

41		C 1 . 1
the	specification	of which

- a. is attached hereto
- b. was filed on February 27, 2001 as application Serial No. 09/786,108 and was amended on . (if applicable).

PCT FILED APPLICATION ENTERING NATIONAL STAGE

c. was described and claimed in International Application No. <u>PCT/US99/19902</u> filed on August 31, 1999 and as amended on . (if any).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby specify the following as the correspondence address to which all communications about this application are to be directed:

SEND CORRESPONDENCE TO: Maria C.H. Lin

DIRECT TELEPHONE CALLS TO: 212-415-8745

MORGAN & FINNEGAN, L.L.P.

345 Park Avenue New York, N.Y. 10154

,

I hereby claim foreign priority benefits under Title 35, United States Code § 119 (a)-(d) or under § 365(b) of any foreign application(s) for patent or inventor's certificate or under § 365(a) of any PCT international application(s) designating at least one country other than the U.S. listed below and also have identified below such foreign application(s) for patent or inventor's certificate or such PCT international application(s) filed by me on the same subject matter having a filing date within twelve (12) months before that of the application on which priority is claimed:

\boxtimes	The attached 35 U.S.C. § 119 claim for priority for the application(s) listed below forms a part of this declaration.								
	Country/PCT	Application Number	Date of filing (day, month, yr)	Date of issue (day, month, yr)	Priority Claimed				
PCT		US99/19902	31 August 1999		$\boxtimes Y \square N$				
					\square Y \square N				
					\square Y \square N				
\boxtimes	I hereby claim the b below.	enefit under 35 U.S	.C. § 119(e) of any U	S. provisional applic	ation(s) listed				
	Provisiona	l Application No.	Date of filing ((day, month, yr)					
	60/098,413	3	31 August 199	8					
I herel under	TIONAL STATEMI PART OR PCT IN by claim the benefit ur § 365(c) of any PCT in	nder Title 35, Unitenternational applica	d States Code § 120 ontion(s) designating that	DESIGNATING TH f any United States ap	eplication(s) or andoned)/ U.S.				
				•					
US/PC	CT Application Serial	No. Filing D		patented, pending, ab tion no. assigned (For					
In this continuation-in-part application, insofar as the subject matter of any of the claims of this application is not disclosed in the above listed prior United States or PCT international application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.									
made the kn	by declare that all state on information and be owledge that willful fi h, under Section 1001	lief are believed to alse statements and of Title 18 of the U	be true; and further th the like so made are p	at these statements wounishable by fine or all that such willful fals	ere made with Imprisonment,				

I hereby appoint the following attorneys and/or agents with full power of substitution and revocation, to prosecute this application, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith: John C. Vassil (Reg. No. 19,098), Alfred P. Ewert (Reg. No. 19,887), David H. Pfeffer (Reg. No. 19,825), Harry C. Marcus (Reg. No. 22,390), Robert E. Paulson (Reg. No. 21,046), Stephen R. Smith (Reg. No. 22,615), Kurt E. Richter (Reg. No. 24,052), J. Robert Dailey (Reg. No. 27,434), Eugene Moroz (Reg. No. 25,237), John F. Sweeney (Reg. No. 27,471), Arnold I. Rady (Reg. No. 26,601), Christopher A. Hughes (Reg. No. 26,914), William S. Feiler (Reg. No. 26,728), Joseph A. Calvaruso (Reg. No. 28,287), James W. Gould (Reg. No. 28,859), Richard C. Komson (Reg. No. 27,913), Israel Blum (Reg. No. 26,710), Bartholomew Verdirame (Reg. No. 28,483), Maria C.H. Lin (Reg. No. 29,323), Joseph A. DeGirolamo (Reg. No. 28,595), Michael P. Dougherty (Reg. No. 32,730), Seth J. Atlas (Reg. No. 32,454), Andrew M. Riddles (Reg. No. 31,657), Bruce D. DeRenzi (Reg. No. 33,676), Mark J. Abate (Reg. No. 32,527), John T. Gallagher (Reg. No. 35,516), Steven F. Meyer (Reg. No. 35,613) and Kenneth H. Sonnenfeld (Reg. No. 33,285), Tony V. Pezzano (Reg. No. 38,271), Andrea L. Wayda (Reg. 43,979), Walter G. Hanchuk (Reg. No. 35,179), John W. Osborne (Reg. No. 36,231), and Robert K. Goethals (Reg. No. 36,813) of Morgan & Finnegan, L.L.P. whose address is: 345 Park Avenue, New York, New York, 10154; and Michael S. Marcus (Reg. No. 31,727), John E. Hoel (Reg. No. 26,279), and Stanley B. Green (Reg. No. 24,351) of Morgan & Finnegan, L.L.P., whose address is 1775 Eye Street, Suite 400, Washington, D.C. 20006.

I hereby authorize the U.S. attorneys and/or agents named hereinabove to accept and follow instructions from Maria C.H. Lin as to any action to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and/or agents and me. In the event of a change in the person(s) from whom instructions may be taken I will so notify the U.S. attorneys and/or agents named hereinabove.

Full name of sole or first inventor:	Jane Dixon
Inventor's signature*	Dixon 5/14/01
Residence:	27 Braemer Road, East Setauket, New York, 11733
Citizenship:	Australia
Post Office Address:	same as above
Full name of second inventor:	David McKinnon
Inventor's signature*	2. Mclan 5/5/01 Date
Residence:	27 Braemer Road, East Setauket, New York, 11733
Citizenship:	<u>Australia</u>
Post Office Address:	

ATTACHED IS ADDED PAGE TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR SIGNATURE BY THIRD AND SUBSEQUENT INVENTORS FORM.

- *Before signing this declaration, each person signing must:
 - 1. Review the declaration and verify the correctness of all information therein; and
 - 2. Review the specification and the claims, including any amendments made to the claims.

After the declaration is signed, the specification and claims are not to be altered.

To the inventor(s):

The following are cited in or pertinent to the declaration attached to the accompanying application:

Title 37, Code of Federal Regulation, §1.56

Duty to disclose information material to patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

Title 35, U.S. Code § 101

Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Title 35 U.S. Code § 102

Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent,
- (b) the invention was patented or described in a printed publication in this or foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or
- (f) he did not himself invent the subject matter sought to be patented, or
- (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Title 35, U.S. Code § 103

Conditions for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Title 35, U.S. Code § 112 (in part)

Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art

to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Title 35, U.S. Code, § 119

Benefit of earlier filing date in foreign country; right of priority

An application for patent for an invention filed in this country by any person who has, or whose legal representatives or assigns have, previously regularly filed an application for a patent for the same invention in a foreign country which affords similar privileges in the case of applications filed in the United States or to citizens of the United States, shall have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country, if the application in this country is filed within twelve months from the earliest date on which such foreign application was filed; but no patent shall be granted on any application for patent for an invention which had been patented or described in a printed publication in any country more than one year before the date of the actual filing of the application in this country, or which had been in public use or on sale in this country more than one year prior to such filing.

Title 35, U.S. Code, § 120

Benefit or earlier filing date in the United States

An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

Please read carefully before signing the Declaration attached to the accompanying Application.

If you have any questions, please contact Morgan & Finnegan, L.L.P.

Commissioner for Patents, Box PCT United States Patent and Trademark Office Washington, D.C. 20231

U.S. APPLICATION NO.	FIRST NAMED APPLICANT		ATTY. DOCKET NO.
09/786108	MCKINNON	D	3875-4138US
00/100100		INTERNATIONAL APPLICATION NO.	
MARIA C H LIN MORGAN & FINNEGAN		PCT/USS	99/19902
345 PARK AVENUE		I.A. FILING DATE	PRIORITY DATE
NEW YORK, NY 10154 0053		31 AUG 99	31 AUG 98
		DATE MAILED:	16 APR 200

NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant has submitted papers under 35 U.S.C. 371 to enter the national stage in the United States of America. The items indicated below, however, are missing. The period within which to correct the deficiency noted below and avoid abandonment is set forth in the accompanying Notification.

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):

zason(s).	•
1	The application fails to comply with the requirements of 37 CFR 1.821-1.825. This application does not contain, a "Sequence Listing" as a separate part of the disclosure on paper copy or compact disc, as required by 37 CFR 1.821(c). A copy of the "Sequence Listing" in computer readable format has not been submitted as required by 37 CFR 1.821(e). A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing." The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d). The paper copy or compact disc of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e). Other:
FOR QUE	An initial or substitute computer readable form (CRF) of the "Sequence Listing." An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification. A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(g), 1.825(b) or 1.825(d). STIONS REGARDING COMPLIANCE WITH THESE REQUIREMENTS, PLEASE (03) 308-4216, for Rules interpretation, (03) 308-4212, for CRF submission help, (03) 287-0200, for Patentln software help.
	Pat Booker, Paralegal

Telephone: 703-305-3738

FORM PCT/DO/EO/920 (March 2001)

RECORDATION FORM COVER SHEET PATENTS ONLY

To The Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

_	1.	Name of conveying party(ies):	2. Name and address of receiving party(ies):						
		Jane Dixon, 27 Braemer Rd, East Setauket, NY 11733		Name: The Research Foundation of State University of New York					
		David McKinnon, 27 Braemer Rd, East Setauket, NY 11733		Address: PO Box 9, Albany, New York, 12201-0009					
				Additional name(s) & addresses					
	Ade	ditional name(s) of conveying party(ies) attached?		attached? Yes No					
_	3.	Nature of conveyance:	4.	Patent Application number(s)					
•		Assignment		09/786,108					
		Execution Date(s): 6/5/01	Execution Date(s): 2/27/01						
-	5.	Name and address of party to whom	6.	Total number of applications involved: 1					
		correspondence concerning document should be mailed:	7. Total fee (37 CFR 3.41): \$40.00						
		Name: Maria C.H. Lin Address: Morgan & Finnegan, LLP 345 Park Avenue		A check in the amount of \$40.00 is enclosed.					
		New York, NY 10154		Charge to Deposit Account No.: 13-4500, Order No. 3875-438US1.					
		01 ATRAN1 00000102 134500 09786108		Charge any deficiencies to Deposit Account					
01	FC:58	1 40.00 CH		13-4500, Order No (A duplicate copy of this sheet is enclosed)					
		DO NOT USE	TH	IS SPACE					
	8.	Statement and signature.							
		To the best of my knowledge and belief, the foreg copy is a true copy of original document.	oing	information is true and correct and any attached					
•	Na	me of Person Signing Signature	18.1	Date:					
		ria C.H. Lin	#Xh	June 18, 2001					
	Re	g. No. 29,323 Total no. of pages including cov	er sh	eep attachments and document: 4					
		DO NOT DOTA		C DODITION!					

DO NOT DETACH THIS PORTION

Mail documents to be recorded with required cover sheet information to:

Director of Patents Box Assignments Washington, DC 20231

Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, DC 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, DC 20503.

ASSIGNMENT OF APPLICATION FOR PATENT

WHEREAS:
Jane Dixon, 27 Braemer Road, East Setauket, New York, 11733
David McKinnon, 27 Braemer Road, East Setauket, New York, 11733
(full name(s) and post office address(s) of inventor(s) (including country))
(hereinafter referred to as ASSIGNOR(S)), has made a discovery or invention entitled:
Mammalian ELK Potassium Channel Genes
(title of discovery or invention)
for which application for Letters Patent of the United States has been executed on even date herewith,
for which application for Letters Patent of the United States has been filed on <u>February 27, 2001</u> , under Serial No. <u>09/786,108</u> , and
WHEREAS:
The Research Foundation of State University of New York, PO Box 9, Albany, New York 12201-0009
(name and address of assignee)

(hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire interest in, to and under said invention and in, to and under Letters Patent or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

Be it known that in consideration of the payment by ASSIGNEE to ASSIGNOR(S) of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR(S) hereby sells, assigns and transfers to ASSIGNEE, its successors, legal representatives and assigns, the full and exclusive right, title and interest to said

discovery or invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.

I, SAID ASSIGNOR(S), hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and any Official of any country or countries foreign to the United States of America whose duty it is to issue Letters Patent on applications as aforesaid, to issue all such Letters Patent for said discovery or invention to the ASSIGNEE, as assignee of the entire right, title and interest in, to and under the same, for the sole use and behalf of the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

I, SAID, ASSIGNOR(S), hereby covenant that I have full right to convey the entire right, title and interest herein sold, assigned, transferred and set over;

AND I, SAID ASSIGNOR(S) hereby further covenant and agree that the ASSIGNEE, its successors, legal representatives, or assigns, may apply for foreign Letters Patent on said discovery or invention and claim the benefits of the International Convention, and that I will, at any time, when called upon to do so by the ASSIGNEE, its successors, legal representatives, or assigns, communicate to the ASSIGNEE, its successors, legal representatives, or assigns, as the case may be, any facts known to me respecting said discovery or invention, and execute and deliver any and all lawful papers that may be necessary or desirable to perfect the title to the said discovery or invention, the said applications and the said Letters Patent in the ASSIGNEE, its successors, legal representatives and assigns, and that if reissues of the said Letters Patent or disclaimers relating thereto, or divisions, continuations, or refilings of the said applications, or any thereof, shall hereafter be desired by the ASSIGNEE, its successors, legal representatives, or assigns, I will, at any time, when called up to do so by the ASSIGNEE, its successors, legal representatives, or assigns sign all lawful papers, make all rightful oaths, execute and deliver all such disclaimers and all divisional, continuation and reissue applications so desired, and do all lawful acts requisite for the application for such reissues and the procuring thereof and for the filing of such disclaimers and such applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention or discover in all countries, and without further compensation but at the expense of the ASSIGNEE, its successors, legal representatives and assigns.

Assignor's	Jane	E	Dsion				
· .	First Name: Jane	Middle initial: E	Last name: Dixon				
Citizenship:	Australia						
IN WITNESS WHI May, 2001. STATE OF)	EREOF, I have hereunto set	my hand and affixed my	y seal this / day of				
COUNTY OF)	Suffolk						
me Jane 2. known and known Assignment, and w	to me to be the individual w	who is described in and we that he executed the sa					
ans 1	Haran	AGNES S. HARAN NOTARY PUBLIC, State of N No. 01 HARDAD7 IN	iew York				
Notary Public	1000	Qualified in Suffolk Cou Commission Expires April 4,	202				
Assignor's	Pirst Name: David	Middle initial:	Last name: McKinnon				
Citizenship:	Australia						
STATE OF .)	EREOF, I have hereunto set	t my hand and affixed my	y seal this day of				
On this day me Au to known and known Assignment, and w	nckinnen to me to be the individual w	who is described in and we that he executed the sa	ity, personally appeared to tho executed the foregoing time as his own voluntary act				
Notary Public	DAHL M. CAPELLO Diary Public, State of New York No. 4525287 Qualified in Suffolk County Dommission Expires 11/30/2007	-3-					

619504 v1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	David McKinnon and Jane Dixo	n	
		Group Art Unit:	TBA
Serial No.:	09/786,108		
		Examiner:	TBA
Filed:	2/27/01		
For:	Mammalian ELK Potassium Ch	annel Genes	· .
	NER OF PATENTS AND TRAD ON, D.C. 20231	DEMARKS	
•	STATEMENT UNDER 37 C.F	F.R. §§ 1.821(F) O	R §1.825(b)
Sir:			
	by certify that:		· .
	[] The paper Sequence Listing submitted herewith are id	-	eadable form of the Sequence §1.821(f)).
		ting submitted here	ubstitute computer readable ewith are identical. No new
		Respectfully s	submitted,
Dated: <u>June</u>	218, 2001	MORGAN & Maria C.H. L. Registration N	•

CORRESPONDENCE ADDRESS:

MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, New York 10154 (212) 758-4800 (212) 751-6849 Facsimile

629758 v1

SEQUENCE LISTING

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- Asn Ala Gln Val Ala Lys Gly Phe Pro Ile Val Tyr Cys Ser Asp Gly
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- Phe Cys Glu Leu Ala Gly Phe Ala Arg Thr Glu Val Met Gln Lys Ser 50 55 . 60
- Cys Ser Cys Lys Phe Leu Phe Gly Val Glu Thr Asn Glu Gln Leu Met

 65 70 75 80
- Leu Gln Ile Glu Lys Ser Leu Glu Glu Lys Val Glu Phe Lys Gly Glu 85 90 95
- Ile Met Phe Tyr Lys Lys Asn Gly Ala Pro Phe Trp Cys Leu Leu Asp . 100 105 110
- Ile Val Pro Ile Lys Asn Glu Lys Gly Asp Val Val Leu Phe Leu Ala 115 120 125
- Ser Phe Lys Asp Ile Thr Asp Thr Lys Val Lys Ile Thr Ser Glu Asp 130 135 140
- Lys Lys Glu Asp Arg Ala Lys Gly Arg Ser Arg Ala Gly Ser His Phe
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- Asp Ser Ala Arg Arg Ser Arg Ala Val Leu Tyr His Ile Ser Gly
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 - His Leu Gln Arg Arg Glu Lys Asn Lys Leu Lys Ile Asn Asn Asn Val 180 185 190
 - Phe Val Asp Lys Pro Ala Phe Pro Glu Tyr Lys Val Ser Asp Ala Lys 195 200 205
 - Lys Ser Lys Phe Ile Leu Leu His Phe Ser Thr Phe Lys Ala Gly Trp 210 215 220
 - Asp Trp Leu Ile Leu Leu Ala Thr Phe Tyr Val Ala Val Thr Val Pro 225 230 235 240

Ser Leu Tyr His Thr Arg Thr Lys Asp Leu Lys Asp Phe Ile Arg Val

- His His Leu Pro Gln Gln Leu Lys Gln Arg Met Leu Glu Tyr Phe Gln 500 505 510
- Thr Trp Ser Val Asn Asn Gly Ile Asp Ser Asn Glu Leu Leu Lys 515 520 525
- Asp Phe Pro Asp Glu Leu Arg Ser Asp Ile Thr Met His Leu Asn Lys 530 535 540
- Glu Ile Leu Gln Leu Ser Leu Phe Glu Cys Ala Ser Arg Gly Cys Leu 545 550 555 560
- Arg Ser Leu Ser Leu His Ile Lys Thr Ser Phe Cys Ala Pro Gly Glu 565 570 575
- Tyr Leu Leu Arg Gln Gly Asp Ala Leu Gln Ala Ile Tyr Phe Val Cys
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 - Ser Gly Ser Met Glu Val Leu Lys Asp Ser Met Val Leu Ala Ile Leu 595 600 605
 - Gly Lys Gly Asp Leu Ile Gly Ala Asn Leu Ser Ile Lys Asp Gln Val 610 615 620
- Ile Lys Thr Asn Ala Asp Val Lys Ala Leu Thr Tyr Cys Asp Leu Gln 625 630 635 640
- Cys Ile Ile Leu Lys Gly Leu Phe Glu Val Leu Gly Leu Tyr Pro Glu 645 650 655
- Tyr Ala His Lys Phe Val Glu Asp Ile Gln His Asp Leu Thr Tyr Asn 660 665 670
- Leu Arg Glu Gly His Glu Ser Asp Val Ile Ser Arg Leu Ser Asn Lys 675 680 685
- Ser Thr Val Pro Gln Ala Glu Pro Lys Gly Asn Gly Ser Ile Lys Lys 690 695 700
- Arg Leu Pro Ser Ile Val Glu Asp Glu Glu Glu Glu Glu Glu Glu Glu 705 710 715 720
- Glu Glu Thr Thr Ser Leu Ser Pro Ile Tyr Thr Arg Gly Ser Ser Val 725 730 735
- Ser His Ser Lys Lys Thr Gly Ser Ser Lys Ser Tyr Leu Gly Leu Ser 740 745 750

- Leu Lys Gln Leu Thr Ser Gly Thr Val Pro Phe His Ser Pro Ile Arg
 755 760 765
- Val Ser Ser Ala Asn Ser Pro Lys Thr Lys Gln Glu Ala Asp Pro Pro 770 775 780
- Asn His Gly Thr Arg Lys Glu Lys Asn Leu Lys Val Gln Leu Cys Ser 785 790 795 800
- Leu Gly Thr Ala Gly Thr Pro Glu Leu Ser Pro Arg Ile Val Asp Gly 805 810 815
- Ile Glu Asp Gly Asn Ser Ser Glu Glu Thr Gln Thr Phe Asp Phe Gly 820 825 830
- Ser Glu Gln Ile Arg Pro Glu Pro Arg Ile Ser Pro Ser Leu Gly Glu 835 840 845
 - Ser Glu Ile Gly Ala Ala Phe Leu Phe Ile Lys Ala Glu Glu Thr Lys 850 855 860
 - Gln Gln Ile Asn Lys Leu Asn Ser Glu Val Thr Thr Leu Thr Gln Glu 865 870 875 880
 - Val Ser Gln Leu Gly Lys Asp Met Arg Ser Ile Met Gln Leu Leu Glu 885 890 895
 - Asn Ile Leu Ser Pro Gln Gln Pro Ser Gln Phe Cys Ser Leu His Pro
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 - Thr Ser Ile Cys Pro Ser Arg Glu Ser Phe Gln Thr Arg Val Ser Trp 915 920 925
 - Ser Ala His Gln Pro Cys Leu His Leu Gln Ala Asn Gly Ala His Leu 930 935 940
 - Tyr His Gly Asn Val Thr Ser Asp Ile Trp Ser Val Asp Pro Ser Leu 945 950 955 960
 - Val Gly Ser Asn Pro Gln Arg Thr Glu Ala His Glu Gln Ser Pro Val 965 970 975
 - Asp Ser Glu Leu His His Ser Pro Asn Leu Ala Tyr Ser Pro Ser His 980 985 990
 - Cys Gln Val Ile Gln Glu Gly His Leu Gln Phe Leu Arg Cys Ile Ser 995 1000 1005

Pro His Ser Asp Thr Thr Leu Thr Pro Leu Gln Ser Ile Ser Ala Thr 1010 1015 1020

Leu Ser Ser Ser Val Cys Ser Ser Ser Glu Thr Ser Leu His Leu Val 1025 1030 1035 1040

Leu Pro Ser Arg Ser Glu Glu Gly Ser Ile Thr His Gly Pro Val Ser 1045 1050 1055

Ser Phe Ser Leu Glu Asn Leu Pro Gly Ser Trp Asp Arg Glu Gly Met
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Arg Arg Tyr Gly Arg Ala Gly Ser Lys Gly Phe Asn Ala Asn Arg
35 40 45

Arg Arg Ser Arg Ala Val Leu Tyr His Leu Ser Gly His Leu Gln Lys
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Gln Pro Lys Gly Lys His Lys Leu Asn Lys Gly Val Phe Gly Glu Lys
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Pro Asn Leu Pro Glu Tyr Lys Val Ala Ala Ile Arg Lys Ser Pro Phe 85 90 95

Ile Leu Leu His Cys Gly Ala Leu Arg Ala Thr Trp Asp Gly Phe Ile 100 105 110 Leu Leu Ala Thr Leu Tyr Val Ala Val Thr Val Pro Tyr Ser Val Cys
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Ser Val Val Asp Val Ile Phe Leu Val Asp Ile Val Leu Asn Phe His
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Thr Thr Phe Val Gly Pro Gly Gly Glu Val Ile Ser Asp Pro Lys Leu 50 55 60

Ile Arg Met Asn Tyr Leu Lys Thr Trp Phe Val Ile Asp Leu Leu Ser
65 70 75 80

Cys Leu Pro Tyr Asp Ile Ile Asn Ala Phe Glu Asn Val Asp Glu Gly 85 90 95

Ile Ser Ser Leu Phe Ser Ser Leu Lys Val Val Arg Leu Leu Arg Leu
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Cys Glu Leu Cys Gly Tyr Ser Arg Ala Glu Val Met Gln Arg Pro Cys
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Thr Cys Asp Phe Leu His Gly Pro Arg Thr Gln Arg Arg Ala Ala Ala 65 70 75 80

Gln Ile Ala Gln Ala Leu Leu Gly Ala Glu Glu Arg Lys Val Glu Ile 85 90 95

Ala Phe Tyr Arg Lys Asp Gly Ser Cys Phe Leu Cys Leu Val Asp Val
100 105 110

Val Pro Val Lys Asn Glu Asp Gly Ala Val Ile Met Phe Ile Leu Asn 115 120 125

Phe Glu Val Val Met Glu Lys Asp Met Val Gly Ser Pro Ala His Asp 130 135 140

Lys Thr Phe Arg Leu Lys Leu Pro Ala Leu Leu Ala Leu Thr Ala Arg 165 170 175

Glu Ser Pro Met Arg Thr Gly Ser Thr Gly Ser Pro Gly Ala Pro Gly
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Ala Val Val Asp Val Asp Leu Thr Pro Ala Ala Pro Ser Ser Glu
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Ser Leu Ala Leu Asp Glu Val Ser Ala Met Asp Asn His Val Ala Gly 210 215 220

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- Asn Glu Glu Val Val Ser His Pro Gly Arg Ile Ala Val His Tyr Phe 485 490 495
- Lys Gly Trp Phe Leu Ile Asp Met Val Ala Ala Ile Pro Phe Asp Leu 500 505 510
- Leu Ile Phe Gly Ser Gly Ser Glu Glu Leu Ile Gly Leu Leu Lys Thr
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- Ala Arg Leu Leu Arg Leu Val Arg Val Ala Arg Lys Leu Asp Arg Tyr 530 535 540
- Ser Glu Tyr Gly Ala Ala Val Leu Phe Leu Leu Met Cys Thr Phe Ala 545 550 555 560
- Leu Ile Ala His Trp Leu Ala Cys Ile Trp Tyr Ala Ile Gly Asn Met 565 570 575
- Glu Gln Pro His Met Asp Ser His Ile Gly Trp Leu His Asn Leu Gly
 580 585 590
- Asp Gln Ile Gly Lys Pro Tyr Asn Ser Ser Gly Leu Gly Gly Pro Ser 595 600 605
- Ile Lys Asp Lys Tyr Val Thr Ala Leu Tyr Phe Thr Phe Ser Ser Leu 610 615 620
- Thr Ser Val Gly Phe Gly Asn Val Ser Pro Asn Thr Asn Ser Glu Lys 625 630 635 640
- Ile Phe Ser Ile Cys Val Met Leu Ile Gly Ser Leu Met Tyr Ala Ser 645 650 655
- Ile Phe Gly Asn Val Ser Ala Ile Ile Gln Arg Leu Tyr Ser Gly Thr
 660 665 670
- Ala Arg Tyr His Thr Gln Met Leu Arg Val Arg Glu Phe Ile Arg Phe 675 680 685
- His Gln Ile Pro Asn Pro Leu Arg Gln Arg Leu Glu Glu Tyr Phe Gln 690 695 700
- His Ala Trp Ser Tyr Thr Asn Gly Ile Asp Met Asn Ala Val Leu Lys
 705 710 715 720
- Gly Phe Pro Glu Cys Leu Gln Ala Asp Ile Cys Leu His Leu Asn Arg
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- Ser Leu Leu Gln His Cys Lys Pro Phe Arg Gly Ala Thr Lys Gly Cys
 740 745 750
- Leu Arg Ala Leu Ala Met Lys Phe Lys Thr Thr His Ala Pro Pro Gly 755 760 765
- Asp Thr Leu Val His Ala Gly Asp Leu Leu Thr Ala Leu Tyr Phe Ile 770 775 780
- Ser Arg Gly Ser Ile Glu Ile Leu Arg Gly Asp Val Val Val Ala Ile 785 790 795 800
- Leu Gly Lys Asn Asp Ile Phe Gly Glu Pro Leu Asn Leu Tyr Ala Arg 805 810 815
- Pro Gly Lys Ser Asn Gly Asp Val Arg Ala Leu Thr Tyr Cys Asp Leu 820 825 830
- His Lys Ile His Arg Asp Asp Leu Leu Glu Val Leu Asp Met Tyr Pro 835 840 845
- Glu Phe Ser Asp His Phe Trp Ser Ser Leu Glu Ile Thr Phe Asn Leu 850 855 860
- Arg Asp Thr Asn Met Ile Pro Gly Ser Pro Ser Ser Ala Glu Leu Glu 865 870 875 880
- Ser Gly Phe Asn Arg Gln Arg Lys Arg Lys Leu Ser Phe Arg Arg Arg 885 890 895
- Thr Asp Lys Asp Thr Glu Gln Pro Gly Glu Val Ser Ala Leu Gly Gln 900 905 910
- Gly Pro Ala Arg Val Gly Pro Gly Pro Ser Cys Arg Gly Gln Pro Gly 915 920 925
- Gly Pro Trp Gly Glu Ser Pro Ser Ser Gly Pro Ser Ser Pro Glu Ser 930 935 940
- Ser Glu Asp Glu Gly Pro Gly Arg Ser Ser Pro Leu Arg Leu Val 945 950 955 960
- Pro Phe Ser Ser Pro Arg Pro Pro Gly Asp Ser Pro Gly Glu Pro 965 970 975
- Leu Thr Glu Asp Gly Glu Lys Ser Ser Asp Thr Cys Asn Pro Leu Ser 980 985 990

Gly Ala Phe Ser Gly Val Ser Asn Ile Phe Ser Phe Trp Gly Asp Ser 995 1000 1005

Arg Gly Arg Gln Tyr Gln Glu Leu Pro Arg Cys Pro Ala Pro 1010 1015 1020

Ser Leu Leu Asn Ile Pro Leu Ser Ser Pro Gly Arg Arg Ser Arg Gly 1025 1030 1035 1040

Asp Val Glu Ser Arg Leu Asp Ala Leu Gln Arg Gln Asp Asn Arg Leu
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Glu Thr Arg Leu Ser Ala Asp Met Ala Thr Val Leu Gln Leu Gln
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Arg Gln Met Thr Leu Val Pro Pro Ala Tyr Ser Ala Val Thr Thr Pro 1075 1080 1085

Gly Pro Gly Pro Thr Ser Thr Ser Pro Leu Leu Pro Val Gly Pro Val 1090 1095 1100

Pro Thr Leu Thr Leu Asp Ser Leu Ser Gln Val Ser Gln Phe Val Ala 1105 1110 1115 1120

Phe Glu Glu Leu Pro Ala Gly Ala Pro Glu Leu Pro Gln Asp Gly Pro 1125 1130 1135

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- Ser Ala Cys Ser Phe Met Tyr Gly Glu Leu Thr Asp Lys Asp Thr Val 65 70 75 80
- Glu Lys Val Arg Gln Thr Phe Glu Asn Tyr Glu Met Asn Ser Phe Glu 85 90 95
- Ile Leu Met Tyr Lys Lys Asn Arg Thr Pro Val Trp Phe Phe Val Lys
 100 105 110
- Ile Ala Pro Ile Arg Asn Glu Gln Asp Lys Val Val Leu Phe Leu Cys
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- Thr Phe Ser Asp Ile Thr Ala Phe Lys Gln Pro Ile Lys Asp Asp Ser 130 135 140
- Cys Lys Gly Trp Gly Lys Phe Ala Arg Leu Thr Arg Ala Leu Thr Ser 145 150 155 160
- Ser Arg Gly Val Leu Gln Gln Leu Ala Pro Ser Val Gln Lys Gly Glu 165 170 175
- Asn Val His Lys His Ser Arg Leu Ala Glu Val Leu Gln Leu Gly Ser 180 185 190
- Asp Ile Leu Pro Gln Tyr Lys Gln Glu Ala Pro Lys Pro Pro His Ile 195 200 205
- Ile Leu His Tyr Cys Val Phe Lys Thr Thr Trp Asp Trp Ile Ile 210 215 220
- Leu Ile Leu Thr Phe Tyr Thr Ala Ile Leu Val Pro Tyr Asn Val Ser 225 230 235 240
- Phe Lys Thr Arg Gln Asn Asn Val Ala Trp Leu Val Val Asp Ser Ile
 245 250 255
- Val Asp Val Ile Phe Leu Val Asp Ile Val Leu Asn Phe His Thr Thr
 260 265 270
- Phe Val Gly Pro Ala Gly Glu Val Ile Ser Asp Pro Lys Leu Ile Arg

- Met Asn Tyr Leu Lys Thr Trp Phe Val Ile Asp Leu Leu Ser Cys Leu 290 295 300 Pro Tyr Asp Val Ile Asn Ala Phe Glu Asn Val Asp Glu Gly Ile Ser 310 315 320 Ser Leu Phe Ser Ser Leu Lys Val Val Arg Leu Leu Arg Leu Gly Arg 325 330 Val Ala Arg Lys Leu Asp His Tyr Ile Glu Tyr Gly Ala Ala Val Leu 340 345 350 Val Leu Leu Val Cys Val Phe Gly Leu Ala Ala His Trp Met Ala Cys 355 360
- Ile Trp Tyr Ser Ile Gly Asp Tyr Glu Ile Phe Asp Glu Asp Thr Lys
 370 375 380
- Thr Ile Arg Asn Asn Ser Trp Leu Tyr Gln Leu Ala Leu Asp Ile Gly
 385 390 395 400
- Thr Pro Tyr Gln Phe Asn Gly Ser Gly Ser Gly Lys Trp Glu Gly Gly 405 410 415
- Pro Ser Lys Asn Ser Val Tyr Ile Ser Ser Leu Tyr Phe Thr Met Thr 420 425 430
- Ser Leu Thr Ser Val Gly Phe Gly Asn Ile Ala Pro Ser Thr Asp Ile 435 440 445
- Glu Lys Ile Phe Ala Val Ala Ile Met Met Ile Gly Ser Leu Leu Tyr 450 455 460
- Ala Thr Ile Phe Gly Asn Val Thr Thr Ile Phe Gln Gln Met Tyr Ala 465 470 475 480
- Asn Thr Asn Arg Tyr His Glu Met Leu Asn Ser Val Arg Asp Phe Leu 485 490 495
- Lys Leu Tyr Gln Val Pro Lys Gly Leu Ser Glu Arg Val Met Asp Tyr 500 505 510
- Ile Val Ser Thr Trp Ser Met Ser Arg Gly Ile Asp Thr Lys Lys Val 515 520 525
- Leu Gln Ile Cys Pro Lys Asp Asn Arg Ala Asp Ile Cys Val His Leu

Asn Arg Lys Val Phe Lys Glu His Pro Ala Phe Arg Leu Ala Ser Asp Gly Cys Leu Arg Ala Leu Ala Met Glu Phe Gln Thr Val His Cys Ala Pro Gly Asp Leu Ile Tyr His Ala Gly Glu Asp Val Asp Ser Leu Cys Phe Val Val Ser Gly Ser Leu Glu Val Ile Gln Asp Asp Glu Val Val - Ala Ile Leu Gly Lys Gly Asp Val Phe Gly Asp Val Phe Trp Lys Glu Ala Thr Leu Ala Gln Ser Cys Ala Asn Val Arg Ala Leu Thr Tyr Cys Asp Leu His Val Ile Lys Arg Asp Ala Leu Gln Lys Val Leu Glu Phe Tyr Thr Ala Phe Ser His Ser Phe Ser Arg Asn Leu Ile Leu Thr Tyr Asn Leu Arg Lys Arg Ile Val Phe Arg Lys Ile Ser Asp Val Lys Arg Glu Glu Glu Glu Arg Met Lys Arg Lys Asn Glu Ala Pro Leu Ile Leu Pro Pro Asp His Pro Val Arg Arg Leu Phe Gln Arg Phe Arg Gln Gln Lys Glu Ala Arg Leu Ala Ala Glu Arg Gly Gly Arg Asp Leu Asp Asp Leu Asp Val Glu Lys Gly Asn Ala Leu Thr Asp His Thr Ser Ala Asn His Ser Leu Val Lys Ala Ser Val Val Thr Val Arg Glu Ser Pro Ala Thr Pro Val Ser Phe Gln Ala Ala Ser Thr Ser Thr Val Ser Asp His Ala Lys Leu His Ala Pro Gly Ser Glu Cys Leu Gly Pro Lys Ala Gly

- Gly Gly Asp Pro Ala Lys Arg Lys Gly Trp Ala Arg Phe Lys Asp Ala 805 810 815
- Cys Gly Lys Gly Glu Asp Trp Asn Lys Val Ser Lys Ala Glu Ser Met 820 825 830
- Glu Thr Leu Pro Glu Arg Thr Lys Ala Ser Gly Glu Ala Thr Leu Lys 835 840 845
- Lys Thr Asp Ser Cys Asp Ser Gly Ile Thr Lys Ser Asp Leu Arg Leu 850 855 860
- Asp Asn Val Gly Glu Ala Pro Ser Pro Gln Asp Arg Ser Pro Ile Leu 865 870 875 880
- Ala Glu Val Lys His Ser Phe Tyr Pro Ile Pro Glu Gln Thr Leu Gln 885 890 895
 - Ala Thr Val Leu Glu Val Lys His Glu Leu Lys Glu Asp Ile Lys Ala 900 905 910
 - Leu Asn Ala Lys Met Thr Ser Ile Glu Lys Gln Leu Ser Glu Ile Leu 915 920 925
 - Arg Ile Leu Met Ser Arg Gly Ser Ser Gln Ser Pro Gln Asp Ile Cys 930 935 940
- Glu Val Ser Arg Pro Gln Ser Pro Glu Ser Asp Arg Asp Ile Phe Gly 945 950 955 960

Ala Ser

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		2 3. 3 4. 5 6. 5 7. 6 9. 10.	Copy of Notice to Missing Parts; Executed Combined Declaration and Power of Attorney; Recordation Cover Sheet; Executed Assignment; Statement Under 37 CFR 1.821(f); Paper copy of Sequence Listing; Disc copy of Sequence Listing; Express Mail Certificate #EL 762 624 518US; and Postcard - self addressed and stamped.					
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